

Advances in Data Technology

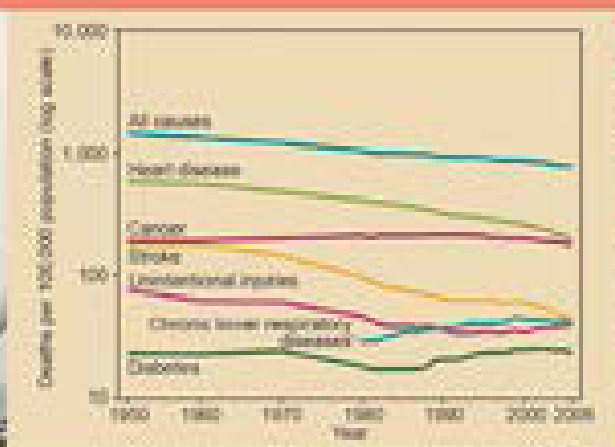
Bob Phillips, MD MSPH

NCVHS and Population Health Subcommittee

American Board of Family Medicine

FOR THE PUBLIC'S HEALTH

The Role of Measurement in Action and Accountability



NAM
2011

RECOMMENDATIONS

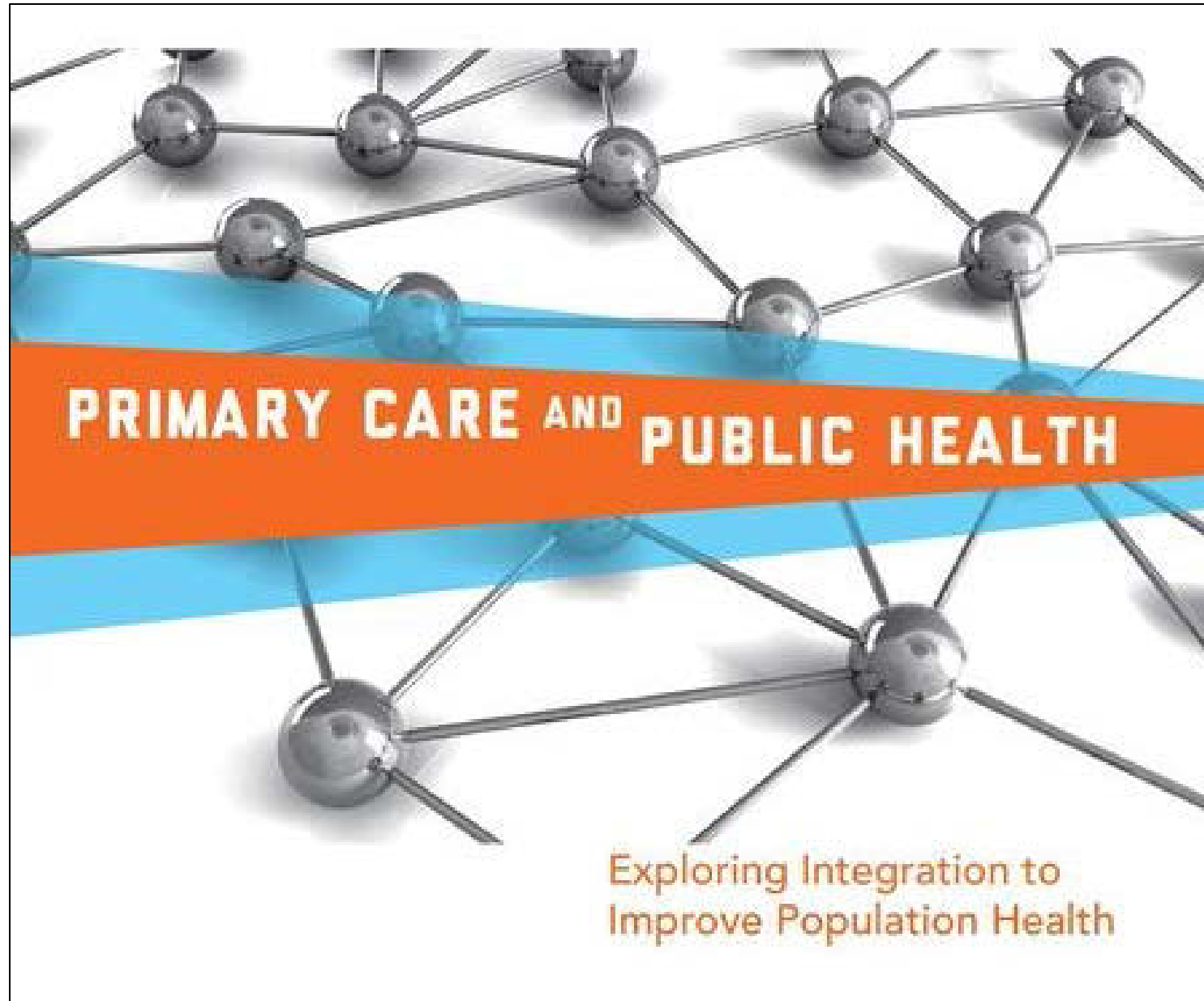
Recommendation 1

- The Secretary of Health and Human Services transform the mission of the **National Center for Health Statistics** to provide leadership to a renewed population health information system through enhanced coordination, new capacities, and better integration of the determinants of health

RECOMMENDATIONS

Recommendation 2

- The committee recommends that the Department of Health and Human Services support and implement the following to integrate, align, and standardize health data and health-outcome measurement at **all geographic levels**:
 - **A core, standardized set of indicators that can be used to assess the health of communities.**
 - A core, standardized set of **health-outcome indicators** for national, state, and local use.
 - **A summary measure of population health** that can be used to estimate and track health-adjusted life expectancy for the United States.



NAM
2012

Recommendation 1

To link staff, funds, and data at the regional, state, and local levels, HRSA and CDC should:

(Bullet 3)

- **join efforts to undertake an inventory of existing health and health care databases and identify new data sets, creating from these a consolidated platform for sharing and displaying local population health data that could be used by communities**

This platform could ensure that communities can use these data in assessments, intervention planning, and evaluation. The platform would not be “owned” by primary care or public health, but would constitute local neutral space where both sectors could come together to use data that would support the achievement of better health outcomes.



Agency for Toxic Substances and Disease Registry (ATSDR) **Social Vulnerability Index**

- U.S. Census and American Community Survey variables at tract level (~74k tracts 2010)
- to help local officials identify communities that may need support in preparing for hazards, or recovering from disaster
- The SVI ranks each tract on 14 social factors, including poverty, lack of vehicle access, and crowded housing, and groups them into four related themes

The Social Vulnerability Index (SVI)

What is the SVI?

Social vulnerability refers to the resilience of communities when confronted by external stresses on human health, stresses such as natural or human-caused disasters, or disease outbreaks. Reducing social vulnerability can decrease both human suffering and economic loss. ATSDR's Social Vulnerability Index uses U.S. census variables at tract level to help local officials identify communities that may need support in preparing for hazards, or recovering from disaster.

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SVI Mapping

Check the social vulnerability of your community

Zip code: *

News

[Data for SVI 2014 now available!](#)

SVI Community

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SVI Topics



Fact Sheet

Learn about Social Vulnerability, the SVI, and its uses.



Interactive Map

Click through to select a theme, location, layers (hospitals, etc.), and tract info. Export or print your customized map.



Data and Tools Download

Download 2014, 2010, or 2000 SVI data and geoprocessing tools.



Prepared County Maps

View, save, and print SVI maps showing overall social vulnerability and the four themes at the census tract level for any county.



SVI Publications, Posters, Presentations, and other Materials

Explore other SVI-related articles and materials produced by the CDC or our partners.



Other Social Vulnerability Resources

Review websites, citations, and other resources of interest.



Contact Us:

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The Social Vulnerability Index (SVI)

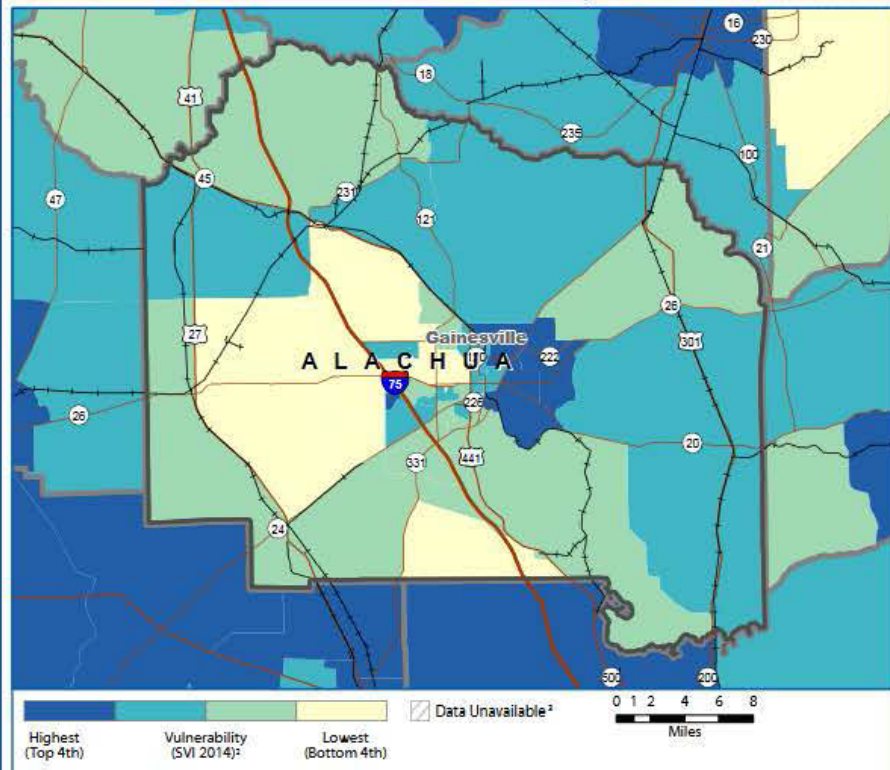
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Social Vulnerability Index 2014

Alachua County, Florida

PART 1

Overall Social Vulnerability¹



Social vulnerability refers to a community's capacity to prepare for and respond to the stress of hazardous events ranging from natural disasters, such as tornadoes or disease outbreaks, to human-caused threats, such as toxic chemical spills. The **Social Vulnerability Index (SVI 2014)**⁴ County Map depicts the social vulnerability of communities, at census tract level, within a specified county. SVI 2014 groups **fifteen census-derived factors** into **four themes** that summarize the extent to which the area

is socially vulnerable to disaster. The factors include economic data as well as data regarding education, family characteristics, housing, language ability, ethnicity, and vehicle access. Overall Social Vulnerability combines all the variables to provide a comprehensive assessment.

HELP PRODUCED 1/20/2015
GRASP

Agency for Toxic Substances and Disease Registry
Division of Toxicology and Human Health Sciences



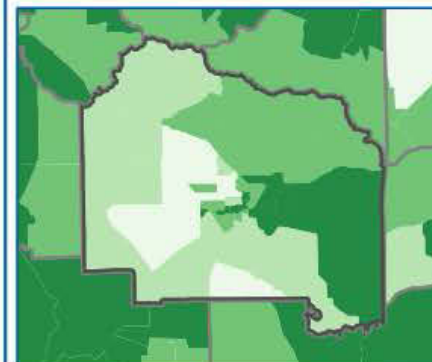
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SVI 2014 - ALACHUA COUNTY, FLORIDA

PART 2

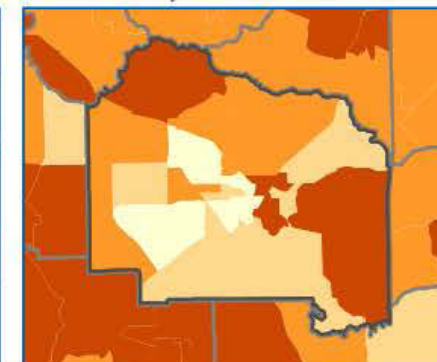
SVI Themes

Socioeconomic Status⁵



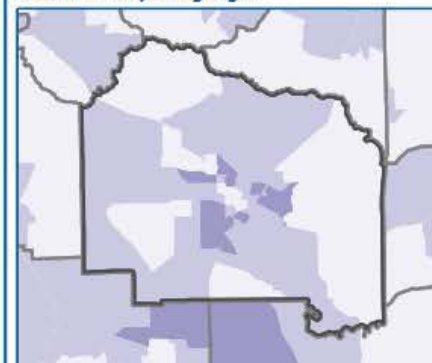
Legend: Highest (Top 4th), Vulnerability (SVI 2014)², Lowest (Bottom 4th).

Household Composition⁶



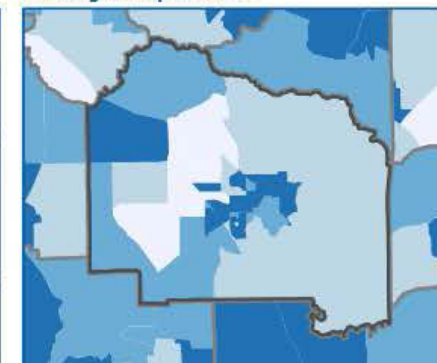
Legend: Highest (Top 4th), Vulnerability (SVI 2014)², Lowest (Bottom 4th).

Race/Ethnicity/Language⁷



Legend: Highest (Top 4th), Vulnerability (SVI 2014)², Lowest (Bottom 4th).

Housing/Transportation⁸



Legend: Highest (Top 4th), Vulnerability (SVI 2014)², Lowest (Bottom 4th).

Data Sources: ¹ATSDR GRASP.

Notes: ¹Overall Social Vulnerability: All 15 variables. ²Census tracts with 0 population. ³The SVI combines percentile rankings of US Census American Community Survey (ACS) 2010-2014 variables, for the state of interest, at the census tract level. ⁴Socioeconomic Status: Poverty, Unemployed, Per Capita Income, No High School Diploma. ⁵Household Composition: Disability, Aged 65 and Over, Aged 17 and Younger, Single-person Household, Aged 5 and over with a Disability. ⁶Race/Ethnicity/Language: Minority, English Language Ability. ⁷Housing/Transportation: Multi-unit, Mobile Homes, Crowding, No Vehicle, Group Quarters.

Projection: NAD 1983 Florida GDL Albers.

Reference: Penregon, S.E., et al., A Social Vulnerability Index for Disaster Management. *Journal of Homeland Security and Emergency Management*, 2011, 8(1).

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Social Vulnerability Index (SVI) Mapping Dashboard

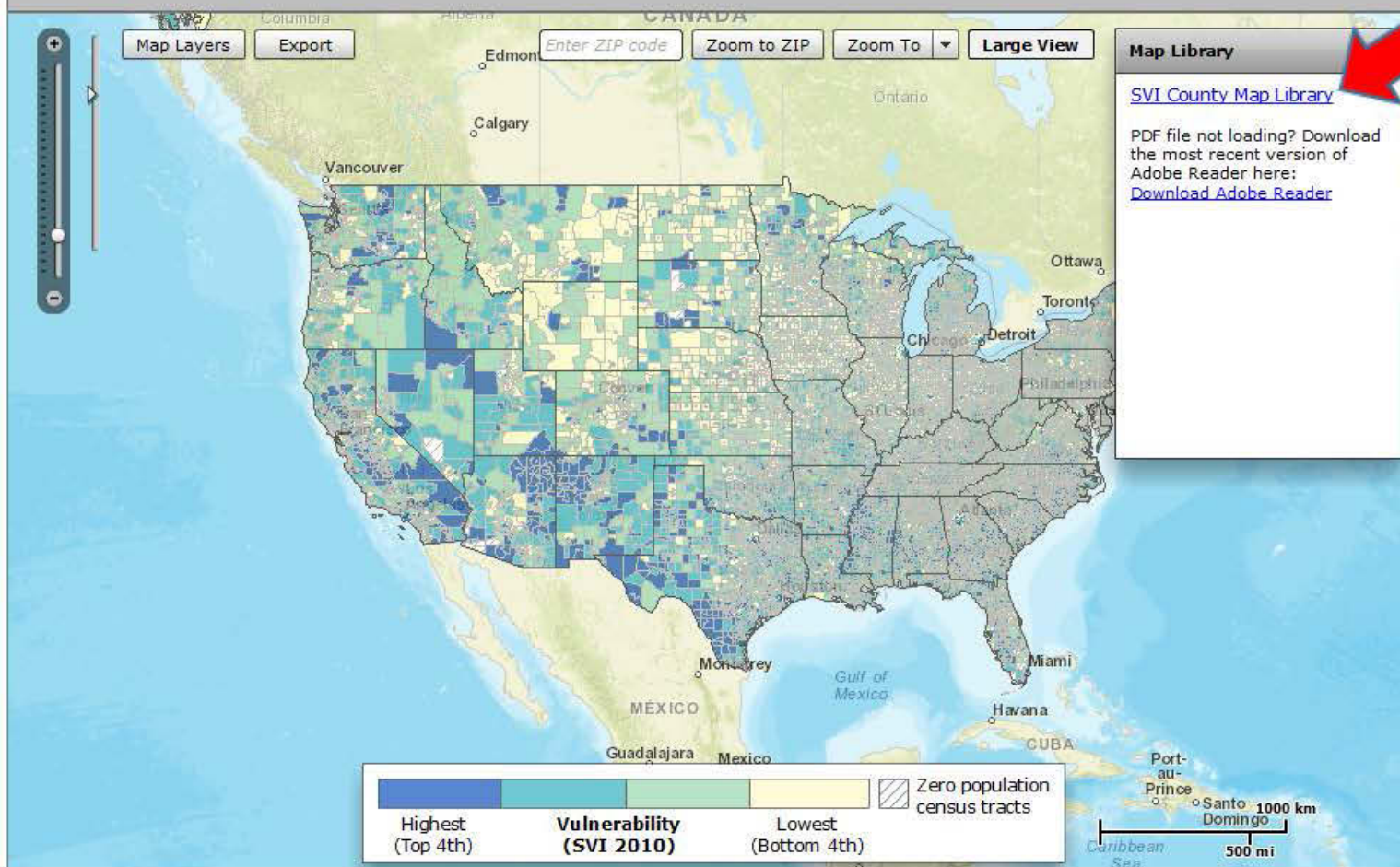
[About the Data](#) | [Download SVI Data](#) | [Help](#) | [Email Us](#) | [SVI Home](#)

SVI Year SVI 2010 **Theme** Overall Vulnerability **State** All States **County**
Go! Reset map



Now Showing: **Overall Vulnerability** | All States
[Data Classified by All US Census Tracts]

SVI 2010



The **UDS Mapper** (Uniform Data Set)

About the UDS Mapper

The UDS Mapper is the result of a [HRSA](#)-funded project directed by the [Robert Graham Center](#).

Project Background

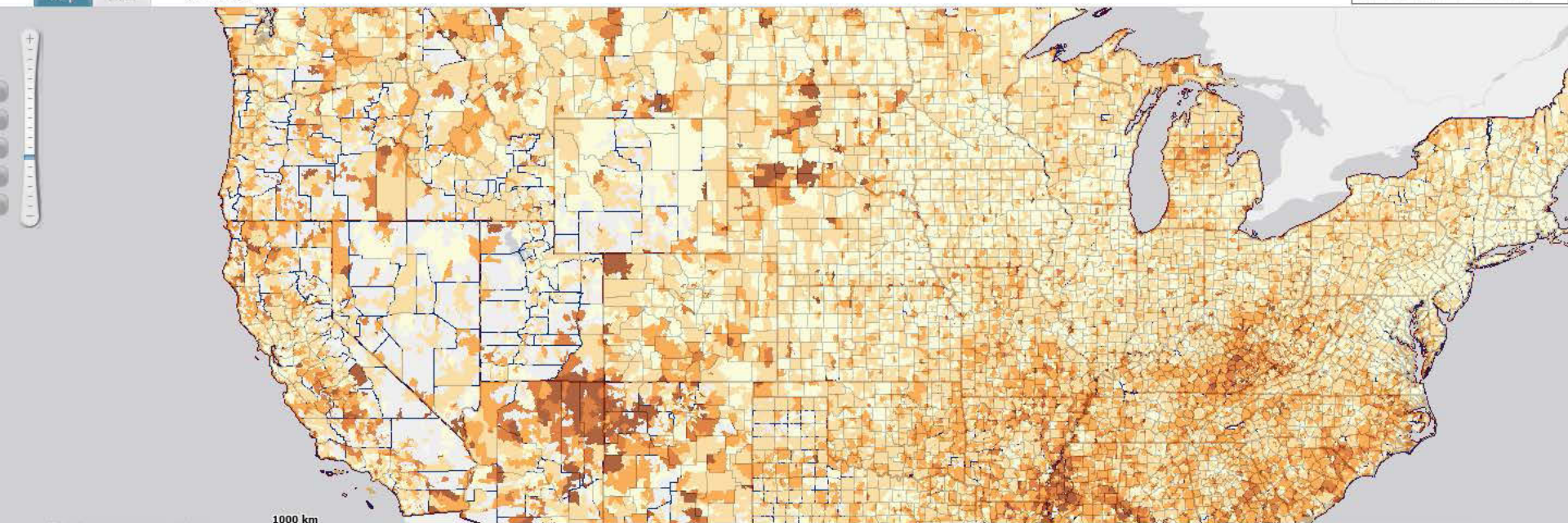
It is essential that HRSA, BPHC, and health center organizations have access to tools and data that can assist in evaluating the geographic reach, penetration, and growth of the Section 330-funded Health Center Program (HCP) and its relationship to other federally-linked health resources. As such, HRSA, John Snow, Inc. and the Robert Graham Center have collaborated to develop a mapping and decision-support tool driven primarily from data within the [Uniform Data System](#) (UDS), previously not publicly accessible at the local level.

UDS Mapper

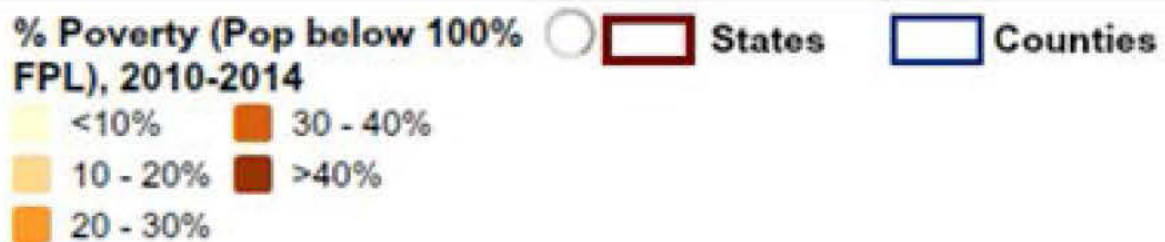
Home About Tutorials & Resources

Map Data Main Maps

Search for a place on the map



Legend



Main Maps

Choose a main map below to show either UDS data on health center patients, or total population (not just patient) statistics.

Begin by selecting a topic:

Population Data

UDS Data

Main Maps Rollovers Off

Zoom in to enable rollovers

Select an Indicator

☐ No Main Maps Selected

Poverty Level [Hide](#)

☒ % Poverty (Pop below 100% FPL), 2010-2014 [About](#)

☐ % Low Income (Pop below 200% FPL), 2010-2014 [About](#)

Race and Ethnicity [Show](#)

Insurance Status [Show](#)

Uninsurance by Income Level [Show](#)

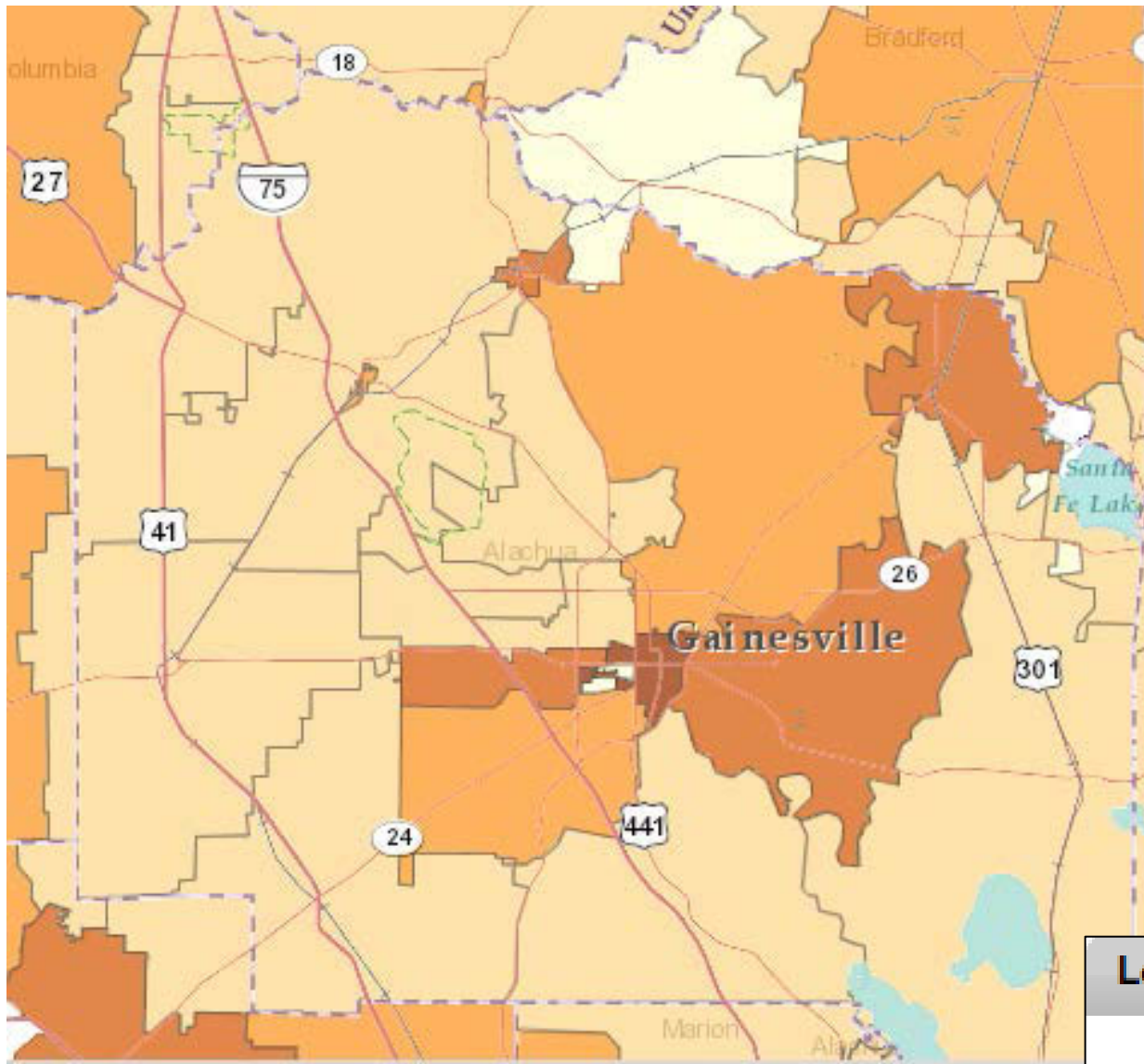
Age [Show](#)

Social Environment [Show](#)

Not Served (Dot Density) [?](#)
Currently showing combined data

☐ Low-Income Not Served by Health Centers [About](#)

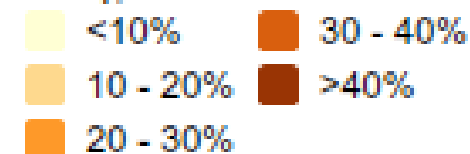
☐ Uninsured Not Served by [About](#)



Alachua County, FL

Legend

% Poverty (Pop below 100% FPL), 2010-2014



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Not Served (Dot Density)

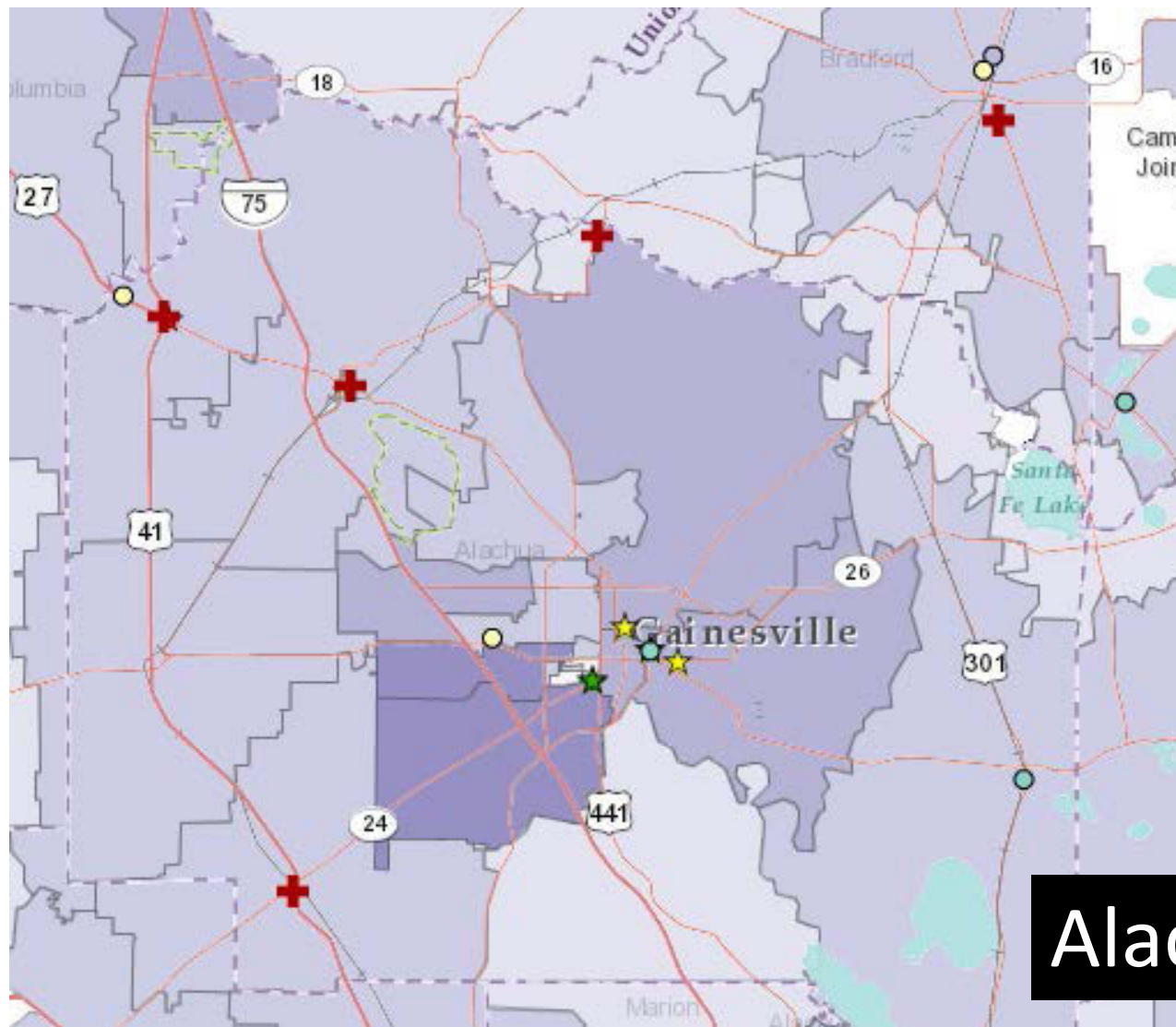
Currently showing combined data

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☐ Uninsured Not Served by [About](#)

Basemaps and Optional Layers

Layer Controls



Alachua County, FL

- HCP Grantee Service Access Points
- HCP Look-Alike Service Access Points

- NHSC Sites**
- Less than 1 PC FTE
- 1-5 PC FTEs
- 5+ PC FTEs
- All Other Providers

- Rural Health Clinics

Low-Income Not Served by Health Centers for Combined

- 0
- 1 - 2,200
- 2,201 - 6,200
- 6,201 - 12,200
- 12,201 - 24,000
- 24,001 and greater

Explore Service Area Tool

Main Maps

Begin by selecting a topic:

Population Data UDS Data

Main Maps Rollovers On

Select Health Center Type

☐ Grantees ☐ Look-Alikes

☒ Combined

Select an Indicator

☐ No Main Maps Selected

Penetration [Show](#)

Percent Change [Show](#)

Health Center Characteristics [Show](#)

Not Served by Health Centers [Hide](#)

☒ Low-Income Not Served by Health Centers [About](#)

☐ Uninsured Not Served by Health Centers [About](#)

☐ Medicaid and Other Public Ins Not Served by Health Centers [About](#)

☐ Medicare or Priv Ins Not Served by Health Centers [About](#)

Basemaps and Optional Layers

In Summary, this workshop could lead to...

- renewed population health information system
- A core, standardized set of indicators that can be used to assess the health of communities, including health-outcome indicators, and a summary measure of population health
- consolidated platform for sharing and displaying local population health data that could be used by communities